

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
6 May 2005 (06.05.2005)

PCT

(10) International Publication Number
WO 2005/041040 A1

(51) International Patent Classification⁷: G06F 11/30, H04M 1/66

(21) International Application Number: PCT/SG2004/000255

(22) International Filing Date: 23 August 2004 (23.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 200306322-9 23 October 2003 (23.10.2003) SG

(71) Applicant (for all designated States except US): NANYANG POLYTECHNIC [SG/SG]; 180 Ang Mo Kio Avenue 8, Singapore 569830 (SG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HUM, Gau wei [MY/SG]; Blk 134 #11-80, Edgedale Plains, Singapore 820134 (SG). KAN, Siew Leong [SG/SG]; 207 Jalan Loyang Besar, Singapore 509468 (SG).

(74) Agent: LAWRENCE Y D HO & ASSOCIATES PTE LTD; 30 Bideford Road, #07-01 Thong sia Building, Singapore 229922 (SG).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

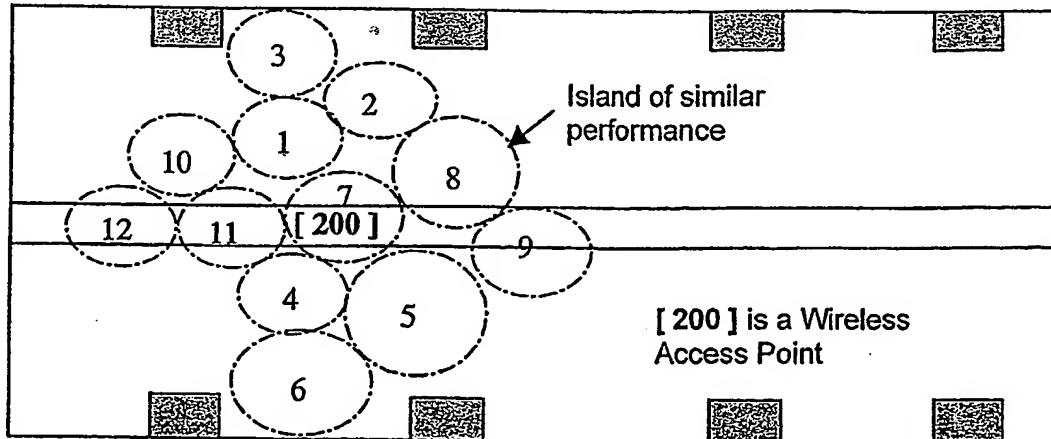
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR DETECTION AND LOCATION OF ROGUE WIRELESS ACCESS USERS IN A COMPUTER NETWORK



(57) Abstract: A system and method to detect and geographically locate rogue wireless access users to a computer network are described. The present invention maps an area covered by the wireless network into islands with substantially similar network performances based on information collected by a network management system. This information is collected throughout the day to form a spatial performance model which comprises historical records of each island, giving a dynamic picture of the area covered. The averages of these historical values of the performance parameters at each time interval of the day form the basis of comparison with the captured current values of the rogue user. Once a potential intruder has been identified from his Media Access Control and Internet Protocol addresses, the algorithm of the present invention is used to localize the suspect into the island which has the substantially similar performance characteristics as the rogue user's computer.

WO 2005/041040 A1